



UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Rodney George WADE

Examiner: C. J. Price

Serial No.: 10/688,886

Group Art Unit: 3753

Filed: October 21, 2003

Confirmation No. 2767

Title: FIRST FLUSH WATER DIVERTER

**RESPONSE TO NON-COMPLIANT OFFICE ACTION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Non-Compliant Office Action dated July 23, 2007, Applicant submits herewith the replacement section "(G) Summary of the Invention".

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

30595

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**(G) Summary of the Invention**

**Single Independent Claim 1:**

In claim 1, the first flush diverter 10 (page 6, line 9) of the present invention diverts rainwater by using a T-piece 13 (page 6, line 10) inserted in a water line (piping 16)(page 6, line 13), which transports water from a roof gutter (not shown) to (piping 17)(page 6, line 14) that is connected to a storage or usage area (fresh water collection tank page 6, line 15). The T-piece 13 has an outlet at circular seat 18 (page 6, line 15) that opens into a rainwater collection chamber 14 (page 6, line 19) that collects the initial flow of dirty rainwater that has washed off the roof of the building. The collection chamber 14 (page 6, line 11) has a drain (outlet 15)(page 6, line 11), which continually empties the collection chamber as it fills from the T-piece 13 through the opening provided by the circular seat 18 (page 6, line 15). Once the collection chamber 14 fills with rainwater, a float 19 (page 6, line 16) seals the opening defined by the circular seat 18 so that substantially all of the rainwater flows through pipe 17 (page 6, line 14) to the storage or usage area (fresh water collection tank page 6, line 15).

Further with respect to claim 1, the present invention determines the carrying capacity of the collection chamber 14 (page 6, line 19) to adjust for a local pollution factor (PF) (page 4, line 6) wherein the factor varies between 0.0005 (page 4, line 7) for light pollution locations (no trees that drop debris and have insects and birds) to 0.002 (page 4, line 8) for high pollution locations (which have trees and thus fewer insects and birds). The pollution factor (PF) is multiplied by the roof area (RA) (page 4, line 5) and then by 1000 (page 4, line 1) to determine the carrying capacity (DF) of the collection chamber 14 in liters. In other words,  $DF = RA \times PF \times 1000$  (page 4, line 1).

**Dependent claims 2-9**

In claim 2 the collection chamber is a pvc tube having a diameter of approximately 300 mm (page 7, line 7). To determine the length of the pipe and thus the carrying capacity according to the formula  $DF=RA \times PF \times 1000$  (page 4, line 1), one need only insert the area of the roof (RA), select the appropriate pollution factor (PF), multiply the product by 1000 and divide by 300mm. The PVC pipe (page 7, line 7) is then cut to this determined length and one has a first flush water diverter in accordance with claim 2 of the present invention, wherein the collection chamber 14 is correctly sized for roof area (RA) and pollution factor (PF).

In claim 3 the length is shown to be in a selected range of about 225mm to about 2005mm (page 4, line 26 - page 5, line 7). Thus, a correctly sized collection chamber 14 (page 6, line 11) for a specific site is readily fabricated by simply cutting off a length of pipe from a stock supply of 300mm pipe (page 7, line 7).

Claim 4 recites that the collection (chamber 14, page 6, line 11) is adapted for support on a stand (page 6, line 11) or a post 26 (page 6, line 28).

In claim 5, a hose connection 25 (page 6, line 23) is fitted to a flow control valve 24 (page 6, line 22).

Claims 6 and 7 recite respectively that a conical cap 20 (page 6, line 17) connects the T-piece 13 to the collection chamber 14 (page 6, lines 10-11) and that a conical receptacle 21 (page 6, line 20) is fitted to the lower end of the collection chamber 14 at the outlet 15 (page 6, line 11, Fig. 1).

Claim 8 recites the filter screen 22 (page 6, line 2) while Claim 9 recites a ball float 19 (page 6, line 16).